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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,222	04/14/2004	Bruce G. Caldwell	BCCER 1017144	6292

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EXAMINER

ROSSI, JESSICA

ART UNIT PAPER NUMBER

1733

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/824,222

Applicant(s)

CALDWELL ET AL.

Examiner

Jessica L. Rossi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/14/04, Prelim. Amd.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 13-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada (US 4535990) in view of Niskanen et al. (US 5342812).

With respect to claim 13, Yamada teaches making a golf club head by injection molding a body 1 of predetermined shape from a plastics material, where the body has a front, striking face, a rear face, an upper face and a lower face (Figures; column 2, lines 25-40). The reference teaches injection molding a sole plate 13 of predetermined shape matching that of the lower face of the body from a glass fiber reinforced plastic material (column 2, line 62 – column 3, line 5 – paying close attention to lines 3-5 in column 3) and joining the sole plate to the lower face of the body (column 2, lines 62-64). The reference is silent as to the body being a ceramic composite material and adhesively joining the sole plate to the lower face of the body.

It is known in the art to injection mold the body of a golf club head from a ceramic composite material, as an alternative to a plastic composite material, where both composite materials offer the advantage of their properties being tailorable to a specific application, i.e. club head may be designed for optimum mass distribution to enhance golf club inertia that could maintain the golf club head path constant throughout contact with the golf ball thereby reducing

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slicing and hooking, as taught by Niskanen (abstract; column 12, lines 37-42 and 58-62 and 65-67; column 13, lines 11-13 and 40-56 and 42-63).

One reading Yamada as a whole would have appreciated that the reference is not particularly concerned with a material for the body and therefore would have been motivated to select any material that is within purview of the skilled artisan. However, it would have been obvious to the skilled artisan to select a ceramic composite material because such is a known alternative to a plastic composite, as taught by Niskanen, where the ceramic composite also offers the advantage of its properties being tailorable to a specific application.

One reading Yamada as a whole would have also appreciated that the reference is not particularly concerned with how the sole plate is joined to the body (column 2, lines 62-64). Therefore, it would have been obvious to the skilled artisan at the time the invention was made to adhesively join the sole plate to the body because such is known in the art, as taught by Niskanen (column 14, lines 56-63; column 29, lines 2-17).

Regarding claim 14, one reading Yamada would have appreciated that the reference is not concerned with a particular plastic for the glass fiber reinforced plastic material of the sole plate (column 2, line 65 – column 3, line 5). Therefore, selection of a plastic would have been within purview; it being noted that PPS is a well known plastic material used in fiber-reinforced plastics.

Regarding claim 15, it is well known and conventional to include additives in a fiber reinforced plastic with selection of a particular additive being within purview of the skilled artisan; it being noted that PTFE additives are well known in the fiber reinforced plastics art.

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Regarding claim 16, selection of a percentage for the additive would have been within purview of the skilled artisan.

Regarding claim 18, Yamada lacks the specific details of the body and sole plate having mating formations that engage when the sole plate is bonded to the body. Niskanen shows the body is provided with at least four protrusions or formations (not numbered) that serve to receive four bolts 10 that extend through four holes formed in the sole plate. The bolts, when extended through the holes in the sole plate may be considered to be "posts" that project upwardly to engage the formations extending from the body. Note the use of adhesive, bolts, screws, welding, soldering or any combination thereof to secure mating parts is a well known practice to the skilled artisan. Thus, to have used the assembly technique of Niskanen with the sole plate arrangement of Yamada in order to provide a secure arrangement between the sole plate and body would have been obvious.

3. Claims 13-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada and Niskanen et al. as applied to claim 13 above, and further in view of Murphy et al.

With respect to claim 13, if it is not taken that Yamada teaches injection molding the sole plate (column 3, lines 3-5), it would have been obvious to do so given that Yamada himself teaches it being known to injection mold fiber reinforced plastic materials to form parts of a golf club head (column 2, lines 38-40) and given that it is known in the art to injection mold a sole plate from a plastic material, as taught by Murphy (section [0009]).

4. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada and Niskanen et al., or Yamada and Niskanen et al. and Murphy et al., as applied to claim 13 above, and further in view of Ashcraft et al. (US 5582553).

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Regarding claim 17, Yamada lacks the specific details of the lower face of the body having a peripheral rim and the sole plate having a matching peripheral rim for bonding to the peripheral rim of the lower body, where each peripheral rim is roughened prior to adhesive application.

Ashcraft shows it to be known in the art to provide a sole plate and body with matching peripheral rims so as to achieve a mating engagement between the same (Figures 3-6). Therefore, it would have been obvious to use such an arrangement for the sole plate and body of Yamada to provide a secure arrangement between the same. As for roughening the rims before adhesive application, such is a known technique in the art for improved adhesion between components of the golf club head, as taught by Niskanen (column 35, lines 45-52).

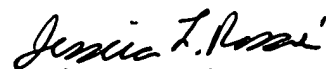
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **571-272-1223**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom G. Dunn can be reached on 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jessica L. Rossi
Primary Examiner
Art Unit 1733